

CLAIM AMENDMENTS

1. (Previously Presented) A method for managing a communications arrangement comprising a plurality of participants, the method comprising the computer-implemented steps of:
assigning, to a first participant from the plurality of participants, one or more functions to be performed by the first participant;
prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,
designating a second participant from the plurality of participants to perform the one or more functions if any of one or more handoff criteria are satisfied;
the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied;
in response to any of the one or more handoff criteria being satisfied, assigning the one or more functions to the second participant; and
selecting, based upon performance of a plurality of communications channels and at least one performance criterion, a first communications channel from a plurality of communications channels.
2. (Previously Presented) The method of Claim 1, further comprising the computer-implemented steps of:
generating channel identification data that identifies the first communications channel;
providing the channel identification data over the first communications channel to one or more participants from the plurality of participants; and

receiving at least a first communication from the one or more participants over a second communications channel from the plurality of communications channels, wherein the second communications channel is determined based on the channel identification data.

3. (Cancelled)
4. (Cancelled)
5. (Previously Presented) A method for assigning functions between participants and selecting communications channels in a communications arrangement comprising a plurality of participants, the method comprising the computer-implemented steps of:
assigning, to a first participant from the plurality of participants, one or more functions to be performed by the first participant;
prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,
designating a second participant from the plurality of participants to perform the one or more functions if any of one or more criteria are satisfied;
the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied;
in response to any of the one or more criteria being satisfied, assigning the one or more functions to the second participant;
selecting, based upon performance of a plurality of communications channels and at least one specified criterion, a first communications channel from the plurality of communications channels;
generating channel identification data that identifies the first communications channel;

providing the channel identification data to one or more participants from the plurality of participants;

receiving at least a first communication from the one or more participants over a second communications channel from the plurality of communications channels, wherein the second communications channel is determined based on the channel identification data that identifies the first communications channel; and

wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol.

6. (Previously Presented) The method of Claim 5, wherein:
communications between the plurality of participants are made using a frequency hopping sequence according to a frequency hopping protocol;
the communications arrangement includes a wireless communications arrangement; and
the plurality of participants includes a plurality of mobile devices.
7. (Cancelled)
8. (Previously Presented) The method of Claim 5, wherein the channel identification data is first channel identification data, and wherein the method further comprises the computer-implemented steps of:
selecting, based upon the performance of the plurality of communications channels and the at least one specified criterion, a third communications channel from the plurality of communications channels;
generating second channel identification data that identifies the third communications channel;

providing the second channel identification data over a particular communications channel of the plurality of communications channels to one or more additional participants from the plurality of participants, wherein the particular communications channel is not the third communications channel; and

receiving at least a second communication from the one or more additional participants over a fourth communications channel from the plurality of communications channels, wherein the fourth communications channel is determined based on the second channel identification data that identifies the third communications channel.

9. (Previously Presented) The method of Claim 5, wherein the computer-implemented step of providing the channel identification data to the one or more participants further comprises the computer-implemented steps of:

providing the channel identification data to the one or more participants over a third communications channel of the plurality of communications channels, wherein the third communications channel is not the first communications channel;

determining the performance of the plurality of communications channels used by the plurality of participants; and

wherein at least the first communication from the one or more participants includes data that indicates the performance of the third communications channel.

10. (Previously Presented) The method of Claim 9, wherein:

the performance of the plurality of communications channels is determined based on a channel performance testing technique selected from the group consisting of a received signal strength indicator, a header error check, a cyclic redundancy check, and forward error correction;

the first communications device is a master participant;

the second communications device is an associate master participant; and

the one or more communications devices are slave participants.

11. (Previously Presented) The method of Claim 5, wherein the computer-implemented step of selecting the first communications channel from the plurality of communications channels further comprises the computer-implemented steps of: classifying one or more communications channels of the plurality of communications channels based upon whether the performance of the one or more communications channels satisfies at least one performance criterion; selecting the first communications channel from the one or more communications channels that are classified as satisfying the at least one performance criterion; and the method further comprises the computer-implemented steps of: determining a number of communications channels of the plurality of communications channels that satisfy the at least one performance criterion; and if the number of communications channels that satisfy the at least one performance criterion is less than a specified number, reclassifying one or more communications channels of the plurality of communications channels.
12. (Cancelled)
13. (Previously Presented) The method of Claim 5, further comprising the computer-implemented steps of: determining the performance of the plurality of communications channels by performing the computer-implemented steps of: sending a request for performance data to at least one participant of the plurality of participants; in response to the request, receiving performance data from the at least one participant; and

creating and maintaining performance data that indicates the performance of one or more communications channels of the plurality of communications channels for communications with one or more participants from the plurality of participants.

14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Previously Presented) The method of Claim 5, wherein:
the one or more criteria include the failure of the first participant;
the first participant is a master participant that performs the steps of selecting, generating, providing, and receiving,
the second participant is a slave participant prior to being assigned to perform the one or more functions,
the second participant is an associate master participant after being designated to perform the one or more functions if any of the one or more criteria are satisfied, and
the one or more participants include one or more slave participants.
18. (Cancelled)
19. (Previously Presented) The method of Claim 5, wherein:
the one or more participants includes the second participant; and
the second participant is designated by at least one other participant that is selected from the group comprising (a) the first participant, (b) the first participant and at least one other participant from the plurality of participants, and (c) one or more participants from the plurality of participants but not including the first participant.
20. (Cancelled)

21. (Cancelled)
22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Cancelled)
27. (Cancelled)
28. (Previously Presented) A first communications device comprising:
an interface that is configured to receive data from a plurality of communications devices and to transmit data to the plurality of communications devices;
and
a mechanism that is communicatively coupled to the interface and configured to:
perform one or more functions;
prior to a failure of the communications device that prevents the communications device from performing any of the one or more functions,
designate a second communications device from the plurality of communications devices to perform the one or more functions if any of a set of criteria are satisfied;
communicate with the second communications device to indicate that the second communications device has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied;

- select, based upon performance of a plurality of communications channels, a first communications channel from the plurality of communications channels;
- generate first channel identification data that identifies the first communications channel;
- provide the first channel identification data to one or more communications devices from the plurality of communications devices; and
- receive at least a first communication from the one or more communications devices over a second communications channel from the plurality of communications channels, wherein the second communications channel is determined based on the first channel identification data that identifies the first communications channel; and

wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more communications devices is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol.

29. (Previously Presented) The first communications device of Claim 28, wherein: communications between the plurality of communications devices are made using a frequency hopping sequence according to a frequency hopping protocol; and the first communications device, the second communications device, and the one or more communications devices are wireless communications devices; and the plurality of communications devices includes a plurality of mobile communications devices.

30. (Cancelled)

31. (Cancelled)

32. (Previously Presented) The first communications device of Claim 28, wherein the mechanism is further configured to:
 - select, based upon the performance of the plurality of communications channels and at least one performance criterion, a third communications channel from the plurality of communications channels;
 - generate second channel identification data that identifies the third communications channel;
 - provide the second channel identification data over a particular communications channel of the plurality of communications channels to one or more additional communications devices from the plurality of communications devices, wherein the particular communications channel is not the third communications channel; and
 - receive at least a second communication from the one or more additional communications devices over a fourth communications channel from the plurality of communications channels, wherein the fourth communications channel is determined based on the second channel identification data that identifies the third communications channel.
33. (Previously Presented) The first communications device of Claim 28, wherein the mechanism is further configured to:
 - provide the channel identification data to the one or more communications devices over a specified communications channel of the plurality of communications channels, wherein the specified communications channel is not the first communications channel;
 - determine the performance of the plurality of communications channels used by the plurality of communications devices; and
 - wherein at least the first communication from the one or more communications devices includes performance data that indicates the performance of the specified communications channel
34. (Cancelled)
35. (Cancelled)

36. (Previously Presented) The first communications device of Claim 33, wherein:
the performance of the plurality of communications channels is determined based
on a channel performance testing technique selected from the group
consisting of a received signal strength indicator, a header error check, a
cyclic redundancy check, and forward error correction;
the first communications device is a master participant;
the second communications device is an associate master participant; and
the one or more communications devices are slave participants.
37. (Previously Presented) The first communications device of Claim 28, wherein the
mechanism is further configured to:
classify one or more communications channels of the plurality of communications
channels based upon whether the performance of the one or more
communications channels satisfies at least one performance criterion;
select the first communications channel from the one or more communications
channels that are classified as satisfying the at least one performance
criterion;
determine a number of communications channels of the plurality of
communications channels that satisfy the at least one performance
criterion; and
if the number of communications channels that satisfy the at least one
performance criterion is less than a specified number, reclassify one or
more communications channels of the plurality of communications
channels.

38. (Previously Presented) A computer-readable storage medium carrying one or more sequences of instructions for managing a communications arrangement comprising a plurality of participants, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:
 - assigning, to a first participant from the plurality of participants, one or more functions to be performed by the first participant;
 - prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,
 - designating a second participant from the plurality of participants to perform the one or more functions if any of one or more handoff criteria are satisfied;
 - the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied;
 - in response to any of the one or more handoff criteria being satisfied, assigning the one or more functions to the second participant; and
 - selecting, based upon performance of a plurality of communications channels and at least one performance criterion, a first communications channel from a plurality of communications channels.
39. (Previously Presented) The computer-readable storage medium of Claim 38, further comprising instructions which, when executed by the one or more processors, cause the one or more processors to carry out the steps of:
 - generating channel identification data that identifies the first communications channel;
 - providing the channel identification data over the first communications channel to one or more participants from the plurality of participants; and

receiving at least a first communication from the one or more participants over a second communications channel from the plurality of communications channels, wherein the second communications channel is determined based on the channel identification data.

40. (Cancelled)
41. (Cancelled)
42. (Previously Presented) A computer-readable storage medium carrying one or more sequences of instructions for assigning functions between participants and selecting communications channels in a communications arrangement comprising a plurality of participants, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:
assigning, to a first participant from the plurality of participants, one or more functions to be performed by the first participant;
prior to a failure of the first participant that prevents the first participant from performing any of the one or more functions to be performed by the first participant,
designating a second participant from the plurality of participants to perform the one or more functions if any of one or more criteria are satisfied;
the first participant communicating with the second participant to indicate that the second participant has been designated to perform the one or more functions if any of the one or more handoff criteria are satisfied;
in response to any of the one or more criteria being satisfied, assigning the one or more functions to the second participant;
selecting, based upon performance of a plurality of communications channels and at least one specified criterion, a first communications channel from the plurality of communications channels;

generating channel identification data that identifies the first communications channel;
providing the channel identification data to a third participant from the plurality of participants;
receiving a first communication from the third participant over a second communications channel from the plurality of communications channels, wherein the second communications channel is determined based on the channel identification data that identifies the first communications channel; and
wherein the plurality of communications channels correspond to a set of frequencies and the first communication received from the one or more participants is based on a hopping sequence among at least two communications channels of the plurality of communications channels, according to a frequency hopping protocol.

43. (Cancelled)
44. (Cancelled)
45. (Cancelled)
46. (Cancelled)
47. (Cancelled)
48. (Cancelled)
49. (Cancelled)
50. (Cancelled)

51. (Cancelled)
52. (Cancelled)
53. (Previously Presented) The first communications device of Claim 28, wherein the mechanism is further configured to:
determine the performance of the plurality of communications channels by
performing the computer-implemented steps of:
sending a request for performance data to at least one participant from the plurality of participants;
in response to the request, receiving performance data from the at least one participant; and
creating and maintaining performance data that indicates the performance of one or more communications channels of the plurality of communications channels for communications with one or more participants from the plurality of participants.
54. (Previously Presented) The first communications device of Claim 28, wherein:
the one or more criteria include the failure of the first communications device;
the first communications device is a master communications device,
the second communications device is a slave communications device prior to
being assigned to perform the one or more functions,
the second communications device is an associate master communications device
after being designated to perform the one or more functions if any of the
one or more criteria are satisfied, and
the one or more participants include one or more slave communications devices.
55. (Previously Presented) The computer-readable storage medium of Claim 42,
wherein:
communications between the plurality of participants are made using a frequency hopping sequence according to a frequency hopping protocol;
the communications arrangement includes a wireless communications arrangement; and

the plurality of participants includes a plurality of mobile devices.

56. (Previously Presented) The computer-readable storage medium of Claim 42, wherein the channel identification data is first channel identification data, and wherein the computer-readable storage medium further comprises one or more sequences of instructions which, when executed by the one or more processors, causes the one or more processors to perform the steps of:

selecting, based upon the performance of the plurality of communications channels and the at least one specified criterion, a third communications channel from the plurality of communications channels;

generating second channel identification data that identifies the third communications channel;

providing the second channel identification data over a particular communications channel of the plurality of communications channels to one or more additional participants from the plurality of participants, wherein the particular communications channel is not the third communications channel; and

receiving at least a second communication from the one or more additional participants over a fourth communications channel from the plurality of communications channels, wherein the fourth communications channel is determined based on the second channel identification data that identifies the third communications channel.

57. (Previously Presented) The computer-readable storage medium of Claim 42, wherein the instructions for providing the channel identification data to the one or more participants further comprises one or more sequences of instructions which, when executed by the one or more processors, causes the one or more processors to perform the steps of:

providing the channel identification data to the one or more participants over a third communications channel of the plurality of communications channels, wherein the third communications channel is not the first communications channel;

determining the performance of the plurality of communications channels used by the plurality of participants; and
wherein at least the first communication from the one or more participants includes data that indicates the performance of the third communications channel.

58. (Previously Presented) The computer-readable storage medium of Claim 57, wherein:
the performance of the plurality of communications channels is determined based on a channel performance testing technique selected from the group consisting of a received signal strength indicator, a header error check, a cyclic redundancy check, and forward error correction;
the first communications device is a master participant;
the second communications device is an associate master participant; and
the one or more communications devices are slave participants.

59. (Previously Presented) The computer-readable storage medium of Claim 42, wherein the instructions for selecting the first communications channel from the plurality of communications channels further comprises one or more sequences of instructions which, when executed by the one or more processors, causes the one or more processors to perform the steps of:
classifying one or more communications channels of the plurality of communications channels based upon whether the performance of the one or more communications channels satisfies at least one performance criterion;
selecting the first communications channel from the one or more communications channels that are classified as satisfying the at least one performance criterion; and
the method further comprises the computer-implemented steps of:
determining a number of communications channels of the plurality of communications channels that satisfy the at least one performance criterion; and

if the number of communications channels that satisfy the at least one performance criterion is less than a specified number, reclassifying one or more communications channels of the plurality of communications channels.

60. (Previously Presented) The computer-readable storage medium of Claim 42, further comprising one or more sequences of instructions which, when executed by the one or more processors, causes the one or more processors to perform the steps of:

determining the performance of the plurality of communications channels by performing the computer-implemented steps of:

sending a request for performance data to at least one participant from the plurality of participants;

in response to the request, receiving performance data from the at least one participant; and

creating and maintaining performance data that indicates the performance of one or more communications channels of the plurality of communications channels for communications with one or more participants from the plurality of participants.

61. (Previously Presented) The computer-readable storage medium of Claim 42, wherein:

the one or more criteria include the failure of the first participant;

the first participant is a master participant that performs the steps of selecting, generating, providing, and receiving,

the second participant is a slave participant prior to being assigned to perform the one or more functions,

the second participant is an associate master participant after being designated to perform the one or more functions if any of the one or more criteria are satisfied, and

the one or more participants include one or more slave participants.

62. (Previously Presented) The computer-readable storage medium of Claim 42, wherein:
the one or more participants includes the second participant; and
the second participant is designated by at least one other participant that is selected from the group comprising (a) the first participant, (b) the first participant and at least one other participant from the plurality of participants, and (c) one or more participants from the plurality of participants but not including the first participant.
63. (Cancelled)
64. (Cancelled)
65. (Cancelled)
66. (Cancelled)